

Panicum virgatum Herbaceous Vegetation [Provisional]

COMMON NAME Wand Panicgrass Herbaceous Vegetation
SYNONYM Switchgrass Wet-mesic Tallgrass Prairie
PHYSIOGNOMIC CLASS Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (V.A.5.N)
FORMATION Tall sod temperate grassland (V.A.5.N.a)
ALLIANCE ANDROPOGON GERARDII - (CALAMAGROSTIS CANADENSIS, PANICUM
 VIRGATUM) HERBACEOUS ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 3

USFWS WETLAND SYSTEM Terrestrial

RANGE

Badlands National Park

The switchgrass type is confined to a large basin near Norbeck Pass and a few small drainages in the eastern-most portion of the North Unit.

Globally

This type has been reported from eastern Wyoming and western South Dakota, but its range is not well understood.

ENVIRONMENTAL DESCRIPTION

Badlands National Park

Switchgrass is a common component of many wetlands and mesic sites, but is a rare dominant in one large, saturated basin and a few minor drainages of the North Unit.

Globally

Switchgrass is a common component of many wetlands and mesic sites, but becomes dominant in wetter parts of drainages and wetland basins (Von Loh et al. 1999)

MOST ABUNDANT SPECIES

Badlands National Park

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Aster ericoides</i> , <i>Glycyrrhiza lepidota</i> , <i>Sporobolus heterolepis</i> , <i>Schizachyrium scoparium</i> , <i>Pascopyrum smithii</i> , <i>Panicum virgatum</i>

Globally

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Aster ericoides</i> , <i>Glycyrrhiza lepidota</i> , <i>Sporobolus heterolepis</i> , <i>Schizachyrium scoparium</i> , <i>Pascopyrum smithii</i> , <i>Panicum virgatum</i>

CHARACTERISTIC SPECIES

Badlands National Park

Panicum virgatum, *Pascopyrum smithii*, *Schizachyrium scoparium*, *Glycyrrhiza lepidota*

Globally

Panicum virgatum, *Pascopyrum smithii*, *Schizachyrium scoparium*, *Glycyrrhiza lepidota*

OTHER NOTABLE SPECIES

VEGETATION DESCRIPTION

Badlands National Park

The switchgrass herbaceous vegetation type provides dense ground cover, typically between 50-80%. Switchgrass (*Panicum virgatum*) is the dominant species in more mesic areas, western wheatgrass (*Pascopyrum smithii*) is more abundant on elevated sites within the drainages and basins, and little bluestem (*Schizachyrium scoparium*) is the dominant species along the upper margin of the type. Where this type is found in drainages, the distribution often becomes "patchy" and prairie sandreed (*Calamovilfa longifolia*) replaces little bluestem on the upper type margin. Commonly associated species include wild licorice (*Glycyrrhiza lepidota*), white aster (*Aster ericoides*), and occasional cottonwood trees (*Populus deltoides*). All sites supporting this type were visited by researchers during the course of this study.

Globally

In Badland National Park, South Dakota, the switchgrass grassland type provides dense ground cover, typically between 50-80%. *Panicum virgatum* is the dominant species in more mesic areas, *Pascopyrum smithii* is more abundant on elevated sites within the

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Badlands National Park

drainages and basins, and *Schizachyrium scoparium* is the dominant species along the upper margin of the type. Where this type is found in drainages, the distribution often becomes "patchy" and *Calamovilfa longifolia* replaces *Schizachyrium scoparium* on the upper type margin. Commonly associated species include *Glycyrrhiza lepidota*, *Aster ericoides*, and occasional tree stems of *Populus deltoides*.

CONSERVATION RANK G2Q.

DATABASE CODE CEGLO01484

MAP UNITS Switchgrass herbaceous vegetation is mapped as a separate unit, Map Class 12 (Switchgrass Grassland) on the Badlands NP vegetation map.

SIMILAR ASSOCIATIONS

COMMENTS

Badlands National Park

Extensive areas dominated by switchgrass, as near Norbeck Pass, are rare in the Great Plains and this type is unique in that regard. The basin and drainages which the type dominates are saturated throughout the growing season and some standing water was present at the time of data collection. This type was very well-visited during field data collection.

Global

The concept of this type is still under review, as well as its alliance placement. Other candidate alliances include *Panicum virgatum* Temporarily Flooded Herbaceous Alliance (A.1343), which is currently reported only from the southern United States, and the *Pascopyrum smithii* Temporarily Flooded Herbaceous Alliance (A.1354), which has many floristic affinities with stands in this type.

REFERENCES

Montana Natural Heritage Program. No Date. Unpublished data on file. Helena, Montana.

Von Loh, J., D. Cogan, D. Faber-Langendoen, D. Crawford, and M. Pucherelli. 1999. USGS-NPS Vegetation Mapping Program, Badlands National Park, South Dakota (Final Report). Technical Memorandum No. 8260-00-02. U.S. Bureau of Reclamation Technical Service Center. Denver Colorado.